and, if anything, seems to respond to the arsenic a little more quickly than the leucocyte line.

The general condition of the patient at present is very good. His symptoms have throughout corresponded pretty well with the blood improvement. His girth is thirty-four or thirty-five inches in place of forty or forty-one. The lower right border of the spleen has retreated to the middle line, or a trifle to the left of it, below the umbilicus. The upper left border is above the costal border, but still further from the middle line than at first; so that the reduction in size of the spleen has been very considerable, involving, I should say, a shortening of its larger diameter four or five inches. It is now freely movable and the abdomen is soft. He has had no epistaxis of any extent since Christmas; he has no fever, no night-sweats, no dyspnœa or cough. His appetite is excellent; he looks and feels very well. His weight, notwithstanding the diminution of girth, has increased several pounds.

ON A CASE OF SIMPLE IDIOPATHIC MUSCULAR ATROPHY, INVOLVING THE FACE AND THE SCAPULO-HUMERAL MUSCLES.

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In the classification of primary myopathies, the difficulties have been greatly increased by the description of forms depending upon the situation of the atrophy. Varieties of the same disease have been described as separate maladies, and from the inevitable confusion we have scarcely escaped.

Erb has simplified matters very much by grouping all the forms under one designation—dystrophia muscularis progressiva—of which two chief types are recognized:

(1) With primary hypertrophy, the pseudo-hypertrophic muscular paralysis.

(2) With primary atrophy.

As cases of pseudo-hypertrophic paralysis occur in which atrophy and hypertrophy exist in the same muscle, or wasting occurs in one group and enlargement in another, or atrophy in one group precedes for months the development of hypertrophy in another, it is not surprising that these two forms are regarded by many as identical. Gowers, however, calls attention to the fact that, when cases of atrophy occur in families, they never present the features of pseudo-hypertrophic disease.

It is in the cases with primary muscular atrophy that the greatest confusion exists in classification, and the following forms have been recognized and described:

(1) Erb's juvenile form.

(2) The facio-scapulo-humeral form of Duchenne, and of Landouzy and Déjérine.

(3) The hereditary form of Leyden.

(4) The peroneal type of Charcot, Marie, and Tooth.

Gowers has, it seems to me, followed the sensible plan in disregarding all of these subdivisions, and describing the cases under the designation "simple idiopathic muscular atrophy."[1]

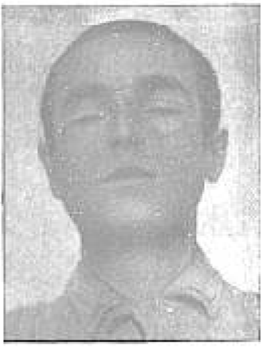
CASE.—Sebastian B., aged fifteen, sent to the University Hospital November, 1888. Good family history, both parents living; mother lame, cause unknown. Has one brother, aged twenty, and a second aged thirteen. Has three sisters, aged seventeen, eight, and three, respectively, all well. Two brothers are dead, cause unknown.

Personal history.—He has had measles, smallpox, and possibly scarlet fever. For several years he has had attacks of abdominal pain. He has also had earache. Until five years ago he was well and strong, and played about like other boys. From this time he had gradually been getting weak in the arms, and for between three and four years he has not been able to whistle. All of this time he has been in fair health, but has had increasing difficulty in dressing himself, and in getting from the recumbent to the erect posture.

Present condition.—Station erect, back not curved, gait normal.

Face smooth, immobile, and expressionless—the so-called facies myopathique; naso-labial fold absent; lips project, but the prominence is in part owing to the teeth. The eyes are large, no exophthalmos; movement of the eyeballs normal. On attempting to close the eyes the pal-

FIG. 1.



Appearance of face.

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[1] A full discussion of the relation of these forms to each other has recently been published by Dr. B. Sachs. New York Med. Journal, Dec. 15, 1888.

pebral slit remains open about two mm. in breadth. Most forcible contraction of the orbicular muscles fails completely to cover the eyes. (See Fig. 1.) He is unable to frown or to pucker his eyebrows. The forehead can be wrinkled. He has fair power of movement of lips, and he can pucker them in the movements to whistle, but cannot make the sound. When he laughs he opens the lips vertically, but the angles of the mouth are not drawn out. The zygomatics do not appear to act. The dilators of the nose move slightly on deep inspiration.

Neck. Thyroid is a little enlarged. The clavicular portion of the sterno-cleido muscle is wasted, the upper part is better marked than at the lower. The scaleni seem well developed.

Thorax. Long, and depressed in antero-lateral regions. The pectorals are extremely wasted, scarcely a portion of the muscle can be felt. The subclavicular regions are much flattened. The scapulæ are winged and stand out prominently. Trapezius is wasted in its lower portion. The superior fold on either side is still well marked. The neck does not look so thin from behind. The latissimi dorsi and serrati muscles are much wasted. The interscapular regions are flattened as if the rhomboids were involved. The supra- and infra-spinati are thin, and the scapular fossæ show with great distinctness.

The *upper extremities* are extremely wasted, contrasting strongly with the legs. The movements are considerably impaired. The right arm can be lifted above the head; the left only to the level of the ear. At the most prominent part of the biceps the circumference is only five inches. The bony prominences of the shoulder-joints stand out almost free from muscular covering. The acromion and coracoid processes and the greater and lesser tuberosities can be plainly seen. The deltoids are extremely wasted. When the arm is everted there is a small portion of the muscle, just above its insertion, which stands out with great prominence. The biceps, triceps, and brachialis anticus on both sides are much wasted. In making strong flexion of the arm there is still a slight belly on the biceps. At the outer margin of the upper part of the right biceps there is an oval, firm portion. Proportionally more muscle remains on the triceps. The forearm measures at the middle five and a quarter inches. The supinators have lost their prominence. The flexors remain in considerable bulk. There is a fair volume of muscle in the extensor surface. Pronation and supination are perfect. The hands are thin; no special wasting of the thenar or hypo-thenar eminences, or of the interosseus spaces. He cannot make a fist satisfactorily with either hand. Movements of the fingers are slow but perfect. There are little warts on the hands, several on the palmar surfaces and terminal phalanges.

Fig. 2 gives a fair representation of the distribution of the atrophy.

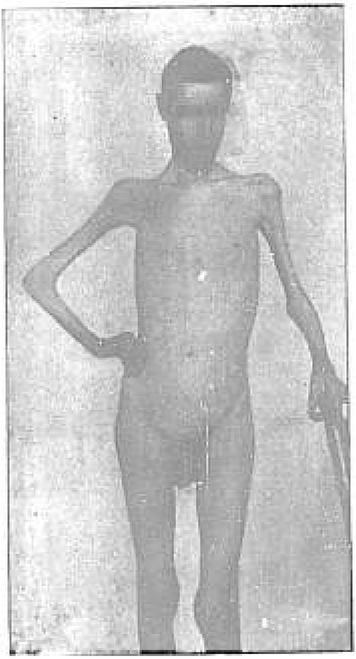
Lower extremities. The glutei do not appear wasted. The thighs at the middle measure eleven and a half inches. The region of the internal vasti seem somewhat wasted. The calves measure nine and a half inches. No wasting of the leg muscles. Moves the feet and toes perfectly.

There are no fibrillary tremors. Sensation everywhere perfect. Knee-jerk extremely feeble.

Dr. Willets reported that there was no reaction of degeneration in any of the wasted muscles.

The patient can still dress himself, but with difficulty. When recumbent, he cannot raise himself upright. He gets out of bed by rolling the feet and legs out first, then turning on his face and sliding out.

FIG. 2.



Showing muscular atrophy.

Duchenne first described a form of muscular atrophy beginning in infancy and attacking the muscles of the face. Landouzy and Déjérine (*Revue de Médecine*, 1885) have studied this form with great care, and regard it as different from the other forms of juvenile hereditary myopathies. In their first communication they described two families, and reported a post-mortem which showed the spinal cord to be normal. In a second communication (*Revue de Médecine*, December, 1886) they described six cases, and again expressed doubts as to the identity of this with Erb's juvenile form, and also denied that it has any connection with pseudo-hypertrophic muscular paralysis. Marie and Guinon (*Revue de Médecine*, 1885) describe four cases in two families, in one instance beginning at the age of thirty. They hold that this form is not essentially different from the other varieties of the primary myopathies. Remak (*Neurologisches Centralblatt*, 1884) describes the case of a man, aged thirty-two, in whom the affection began in childhood; there were other members of the family also affected. He, too, seems to regard it as a variety of the juvenile form of progressive muscular atrophy. Kreske (*Neurologisches Centralblatt*, 1886) reports the case of a boy of ten, affected since his fourth year. There were no other members of the family affected. Singer (*Zeitschrift für Heilkunde*, Bd. 8; *Neurologisches Centralblatt*, 1887) reports the case of a man, aged thirty-four, who for two years had difficulty in whistling; the muscles of the shoulder and of the face were also affected. He, also, regards this form as only a variety, not a separate affection. Spillman and Haushalter (*Revue de Médecine*, 1888), and Sperling (*Neurologisches Centralblatt*, 1889) also report cases.

Altogether, there are recorded about twenty-five of this variety of idiopathic muscular atrophy. In the great majority of cases, the disease has begun in childhood or in youth. One case of Landouzy and Déjérine began at the fortieth year in the shoulder and arm; four years later it affected the face. This, with the case of Singer's, which began at thirty-two years, and the case of Marie and Guinon, which began at thirty years, shows that the onset of the affection may be delayed until adult life. The cases all seem to conform to the characteristics of simple idiopathic muscular atrophy, and I see no reason why we should classify this variety as a separate disorder.

The cases of this kind, and of Erb's juvenile form, do not appear to be nearly so frequent in this country as the pseudo-hypertrophic variety, which is not at all an uncommon disease. With the exception of the case of James Stewart's report (*Canada Lancet*, September, 1884) no cases of Erb's juvenile form have been reported, and none, so far as I know, of the so-called Landouzy-Déjérine type.

A FATAL CASE OF VARICELLA GANGRÆNOSA.

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The following case of this rare modification of the varicellar lesion I have had the opportunity of observing in the practice of Dr. C. W. Büchler:

On November 18, 1888, E. A., female, aged four years, was attacked by varicella, a number of the vesicles became gangrenous, leading to the death of the child on November 27, 1888, with symptoms of septicæmia.